SHADOW MOUNTAIN SPRINGS, INC. (PWS #1090144)
SOURCE WATER ASSESSMENT REPORT

June 4, 2002

State of Idaho
Department of Environmental Quality

Executive Summary

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the act. This assessment is based on a land use inventory of the designated assessment area, sensitivity factors associated with the wells, and aquifer characteristics.

This report, *Source Water Assessment for Shadow Mountain Springs, Inc. (PWS #1090144)*, describes the public drinking water system, the boundaries of the zones of water contribution, and the associated potential contaminant sources located within these boundaries. This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. **The results should <u>not be</u> used as an absolute measure of risk and they should <u>not be</u> used to undermine public confidence in the water system.**

Final susceptibility scores are derived from equally weighting system construction scores, hydrologic sensitivity scores, and potential contaminant/land use scores. Therefore, a low rating in one or two categories coupled with a higher rating in other categories results in a final rating of low, moderate, or high susceptibility. Potential contaminants are divided into four categories, inorganic contaminants (IOCs, i.e. nitrates, arsenic), volatile organic contaminants (VOCs, i.e. petroleum products), synthetic organic contaminants (SOCs, i.e. pesticides), and microbial contaminants (i.e. bacteria). As different wells can be subject to various contamination settings, separate scores are given for each type of contaminant.

The Shadow Mountain Springs, Inc. drinking water system consists of three wells. The wells are located approximately 50' away from each other. Water samples are collected at the pump house and are representative of water quality in all three wells. The water system does not treat its water, as treatment is neither necessary nor required. The system tests monthly for total coliform bacteria. The last positive sample was collected 10/4/99. In 2000 a water sample was collected that revealed arsenic at 27µg/L. On February 22, 2002 a new arsenic in drinking water rule became effective; the date by which systems must comply with the new standard of 10µg/L is January 23, 2006. The new standard will require community water systems, which are public water systems that serve at least 15 locations or 25 residents regularly year round, to reduce the arsenic concentration from the current standard of 50µg/L to 10µg/L. This will require the implementation of an arsenic removal program by Shadow Mountain Springs, Inc.

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

Shadow Mountain Springs, Inc. should first focus drinking water protection activities on developing an arsenic removal program. Information regarding arsenic removal is available through the United States Environmental Protection Agency. After arsenic removal is instituted, the water system should implement practices aimed at maintaining the remaining water quality parameters. They should develop a drinking water protection plan that includes public education, potential contaminant-site management measures and a contingency plan.

Management measures should address the leaching of chemicals from agricultural land within the designated source water assessment areas and the potential for a chemical spill along the railroad track that passes through the wells' source water assessment areas. Drinking water protection activities for agriculture should be coordinated with the Idaho State Department of Agriculture, the Soil Conservation Commission and local Soil Conservation District, and the Natural Resources Conservation Service.

Most of the designated areas are outside the direct jurisdiction of Shadow Mountain Springs, Inc. Partnerships with state and local agencies and industry groups should be established and are critical to success. Due to the time involved with the movement of groundwater, drinking water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term.

A community with a fully developed drinking water protection program will incorporate many strategies. For assistance in developing protection strategies, please contact your regional Idaho Department of Environmental Quality office or the Idaho Rural Water Association.

SOURCE WATER ASSESSMENT FOR SHADOW MOUNTAIN SPRINGS, INC.

Section 1. Introduction: Basis for Assessment

The following sections contain information necessary to understand how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this source means.** A map showing the delineated source water assessment area and the inventory of significant potential sources of contamination identified within that area are attached.

Level of Accuracy and Purpose of the Assessment

The Idaho Department of Environmental Quality (DEQ) is required by the U.S. Environmental Protection Agency (EPA) to assess the over 2,900 public drinking water sources in Idaho for their relative susceptibility to contaminants regulated by the Safe Drinking Water Act. This assessment is based on a land use inventory of the delineated assessment area, sensitivity factors associated with the wells, and aquifer characteristics. All assessments must be completed by May of 2003. The resources and time available to accomplish assessments are limited. Therefore, an in-depth, site-specific investigation to identify each significant potential source of contamination for every public water system is not possible. **This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

The ultimate goal of this assessment is to provide data to local communities to develop a protection strategy for their drinking water supply system. The Idaho Department of Environmental Quality (DEQ) recognizes that pollution prevention activities generally require less time and money to implement than treating a public water supply system once it has been contaminated. DEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a drinking water protection program should be determined by the local community based on its own needs and limitations. Wellhead or drinking water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

Section 2. Conducting the Assessment

General Description of the Source Water Quality

Shadow Mountain Springs, Inc. serves a community of approximately 30 people, located northwest of Sandpoint, Idaho (Figure 1). The Shadow Mountain Springs, Inc. public drinking water system is comprised of three wells.

Shadow Mountain Springs, Inc. monitors water quality regulary. The water system samples monthly for total coliform bacteria. The last positive sample was collected 10/4/99. Nitrate levels are monitored annually and nitrite is monitored every nine years. Both are at acceptable levels.

Inorganic chemicals, including lead and copper, are monitored every three years. Lead and copper levels in the water system have been found to be well below action levels. Arsenic was detected at 19µg/L in a water sample collected 10/27/97 and again in 2000 at 27µg/L. The maximum contaminant level for arsenic is 50µg/L. However, the maximum contaminant level for arsenic will become 10µg/L, effective in 2006 and the water system will be required to implement an arsenic removal program. The water system also tests for volatile organic chemicals every three years. On 7/26/99 a sample was collected that contained 1,1,1-Trichloroethane at .56µg/L. 1, 1,1-Trichloroethane is used as a solvent for removing grease from machined metal, in textile processing and dyeing and in aerosols. The maximum contaminant level for 1,1,1-Trichloromethane is 200µg/L. This chemical was detected in a single sample, with follow-up samples being negative for its presence. The positive sample is most likely the result of sampling error and is not indicative of an ongoing water quality problem. Radionuclides are monitored every four years and are within normal limits. The water system has obtained and waiver for the monitoring of some synthetic organic chemicals.

Defining the Zones of Contribution- Delineation

The delineation process establishes the physical area around a well that will become the focal point of the assessment. The process includes mapping the boundaries of the zone of contribution into time of travel zones (zones indicating the number of years necessary for a particle of water to reach a well) for water in the aquifer. DEQ used a refined computer model approved by the EPA in determining the three-year (Zone 1B), six-year (Zone 2), and ten-year (Zone 3) times-of-travel (TOT) for water in the vicinity of Sandpoint, Idaho. The computer model used site specific data, assimilated by DEQ from a variety of sources including the city and other local well logs. The delineated source water assessment areas for the Shadow Mountain Springs, Inc. wells can best be described as drop shape that widens from the north to the south at the wellheads. The actual data used by DEQ in determining the source water assessment delineation areas are available upon request.

Identifying Potential Sources of Contamination

A potential source of contamination is defined as any facility or activity that stores, uses, or produces, as a product or by-product, the contaminants regulated under the Safe Drinking Water Act and has a sufficient likelihood of releasing contaminants at levels that could pose a concern to drinking water sources. The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of ground water contamination. The locations of potential sources of contamination within the delineation area were obtained by field surveys conducted by DEQ and from available databases.

The dominant land use surrounding the Shadow Mountain Springs, Inc. drinking water system is rural.

It is important to understand that a release may never occur from a potential source of contamination provided best management practices are used at the facility. Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. Therefore, when a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the potential for contamination exists due to the nature of the business, industry, or operation. There are a number of methods that water systems can use to work cooperatively with potential sources of contamination, such as educational visits and inspections of stored materials. Many owners of such facilities may not even be aware that they are located near a public water supply well.

Contaminant Source Inventory Process

A two-phased contaminant inventory of the study area was conducted during the spring of 2002. The first phase involved identifying and documenting potential contaminant sources within the Shadow Mountain Springs, Inc. source water assessment areas through the use of computer databases and Geographic Information System maps developed by DEQ. The second, or enhanced, phase of the contaminant inventory involved contacting the operator to validate the sources identified in phase one and to add any additional potential sources in the area. This task was undertaken with the assistance of Sharon Finney.

A total of two potential contaminant sites are located within the delineated source water areas (Table 1). Potential contaminant sources located in the delineated source water areas include a railroad track and an agricultural field (Figure 2).

Contaminants of concern are primarily related to the possibility of a chemical spill along the railroad track or the leaching of agricultural chemicals such as fertilizers and herbicides into the soils surrounding the wells. Table 1 lists the potential contaminants of concern, time of travel zones, and information source.

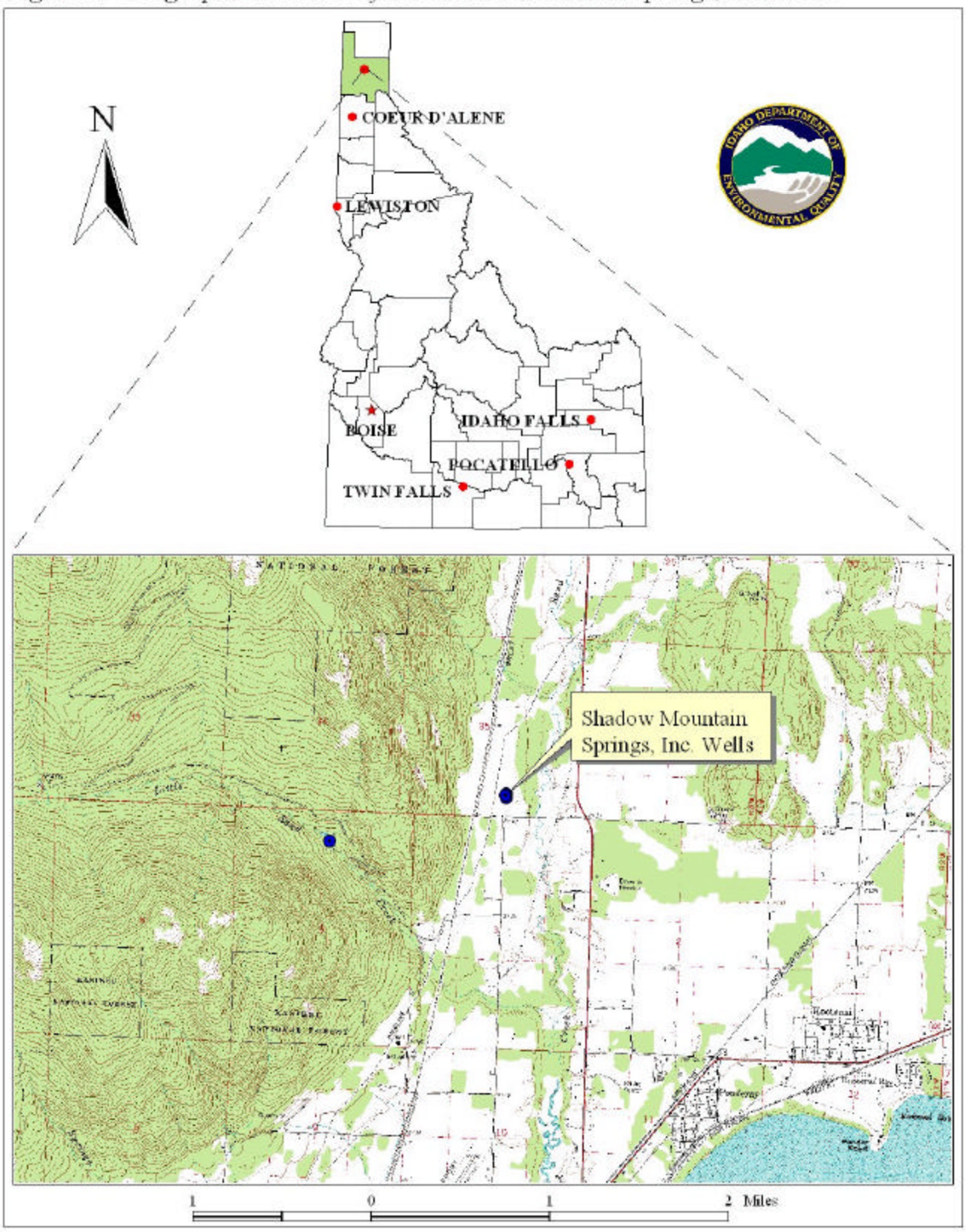
Table 1. Shadow Mountain Springs, Inc. Potential Contaminant Inventory

SITE #	Source Description	TOT Zone[1] (years)	Source of Information	Potential Contaminants[2]
1	Railroad Track	3, 6, 10	Enhanced Inventory	IOC,VOC, SOC
2	Agricultural Field	3, 6, 10	Enhanced Inventory	IOC, SOC

[1]TOT = time of travel (in years) for a potential contaminant to reach the wellhead

[2] IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

Figure 1. Geographic Location of the Shadow Mountain Springs, Inc. Wells



Section 3. Susceptibility Analysis

The susceptibility of the source to contamination was ranked as high, moderate, or low risk according to the following considerations: hydrologic characteristics, physical integrity of the well, land use characteristics, and potentially significant contaminant sources. The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. Therefore, a high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. In the case of Shadow Mountain Springs, Inc., the wells are located just 50' from each other and draw from a common source of water. Therefore, the susceptibility results for each of the three wells are identical. The following summaries describe the rationale for the susceptibility ranking.

Hydrologic Sensitivity

The wells' hydrologic sensitivity is low. This reflects non-porous nature of the soils in the area surrounding the wells and the presence of a significant confining layer (at least 50' thick) retarding the vertical transport of contaminants. The well casings were sunk into several layers of blue clay that provide a barrier against contamination.

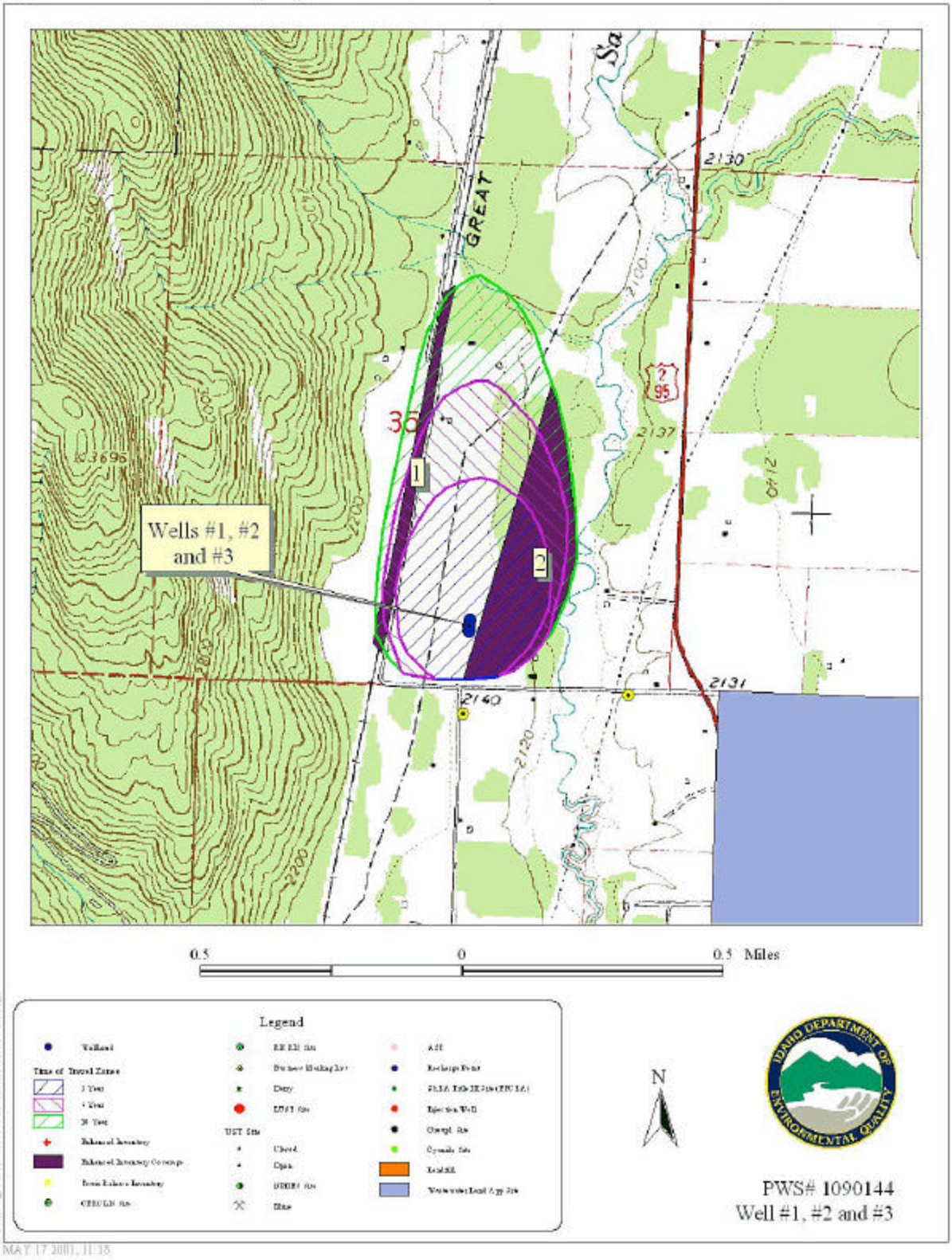
Well Construction

Well construction directly affects the ability of the wells to protect the aquifer from contaminants. Lower scores imply a system that can better protect the water. The Shadow Mountain Springs, Inc. drinking water system consists of three wells that extract ground water for domestic use. The well's system construction scores are low. The wells were drilled in 1993 and range in depth from 187' to 193'. They all utilize 6-inch stainless steel casings that are .250" thick. The Idaho Department of Water Resources (IDWR) *Well Construction Standards Rules (1993)* require all public water systems (PWSs) to follow DEQ standards as well. IDAPA 58.01.08.550 requires that PWSs follow the *Recommended Standards for Water Works (1997)* during construction. Various aspects of the standards can be assessed from well logs. Table 1 of the *Recommended Standards for Water Works (1997)* states that 6-inch steel casing requires a thickness of 0.280 inches. All of the wells were sealed to 20' with bentonite. The wellheads have been maintained appropriately and are located outside of the 100-year floodplain.

Potential Contaminant Source and Land Use

There are a total of two potential contaminant sites located within the wells' source water assessment areas. The first site is a railroad and the second site is an agricultural field. These sites have the potential to release inorganic chemicals, volatile organic chemicals and synthetic organic chemicals into the environment. Chemical spills are a possibility along the railroad track, while fertilizers and herbicides are potential contaminants associated with agricultural. However, the low density of sites and the lack of significant development in the wells' source water assessment areas have resulted in the wells' being assigned low potential contaminant/land use scores.

Figure 2. Shadow Mountain Springs, Inc. Delineation Map and Potential Contaminant Source Locations



Final Susceptibility Ranking

In terms of the total susceptibility score, it can be seen from Table 2 that the wells showed a low overall susceptibility in all chemical classes.

Table 2. Summary of Shadow Mountain Springs, Inc. Susceptibility Evaluation

	Susceptibility Scores[1]									
	Hydrologic Sensitivity	Contaminant Inventory				System Construction	**Final Susceptibility Ranking**			
Well		IOC	VOC	SOC	Microbials		IOC	VOC	SOC	Microbials
1	L	L	L	L	L	L	L	L	L	L
2	L	L	L	L	L	L	L	L	L	L
3	L	L	L	L	L	L	L	L	L	L

[1]H = High Susceptibility, M = Moderate Susceptibility, L = Low Susceptibility
IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

Susceptibility Summary

The Shadow Mountain Springs, Inc. drinking water system is currently not threatened by significant potential sources of contamination. Furthermore, if contaminants were to become present in the wells' source water assessment areas, the wells' are protected against those contaminants by proper well construction and favorable hydrogeologic conditions. Nevertheless, the system has tested positive for levels of arsenic that are above the new maximum contaminant level that will take effect in 2006 and treatment will be required to reduce arsenic levels.

Section 4. Options for Source Water Protection

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

An effective drinking water protection program is tailored to the particular local drinking water protection area. Shadow Mountain Springs, Inc. must first address arsenic levels in the water system. The Environmental Protection Agency can provide guidance on the new maximum contaminant level and removal technologies. Information sources are available on this document's "Assistance" page. After arsenic removal is addressed, the water system should focus drinking water protection activities on implementation of practices aimed at maintaining remaining water quality parameters.

The water system should develop a comprehensive drinking water protection plan that includes public education, potential contaminant site management, and contingency components. The water system operator should notify local residents of the locations of the wells' and their source water assessment areas. Residents should be advised of methods for the proper disposal of household hazardous wastes and of proper septic system maintenance procedures to reduce the risk of contamination through residential activities. The owner of the agricultural field adjacent to the wells' source water assessment areas should be informed of the wells' locations and of best management practices for agriculture. The ultimate goal of this contact would be to reduce the leaching of fertilizers and herbicides from agricultural land within the delineated source water area.

Lastly, the system should draw up a contingency plan with emergency response measures that address the possibility of a chemical spill along the railroad track that passes near the wellheads. The contingency plan should include an up-to-date list of emergency contact names and numbers and should identify an alternative source of drinking water should one become necessary. Most of the delineated area is outside the direct jurisdiction of Shadow Mountain Springs, Inc. Therefore, partnerships with state and local agencies and industry groups should be established and are critical to success.

Due to the time involved with the movement of ground water, wellhead protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term. Drinking water protection activities for agriculture should be coordinated with the Idaho Department of Agriculture, the Soil Conservation Commission, the local Soil Conservation District, and the Natural Resource Conservation Service.

Assistance

Public water supplies and others may call the following IDEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the IDEQ office for preliminary review and comments.

IDEQ

Coeur d'Alene Regional IDEQ Office	(208) 769-1422
State IDEQ Office	(208) 373-0502
Website:	http://www.deq.state.id.us/

EPA

Website:	http://www.epa.gov/

Arsenic Removal	(800) 426-4791
Website:	www.clu-in.org

Water suppliers serving fewer than 10,000 persons may contact Melinda Harper, Idaho Rural Water Association, at 1-800-962-3257 for assistance with drinking water protection (formerly wellhead protection) strategies.

Idaho Rural Water Association

Melinda Harper	1-800-962-3257
Website:	www.idahoruralwater.com

References Cited

Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, 1997. "Recommended Standards for Water Works."

Idaho Department of Environmental Quality, 1997. Design Standards for Public Drinking Water Systems. IDAPA 58.01.08.550.01.

Idaho Department of Water Resources, 1993. Administrative Rules of the Idaho Water Resource Board: Well Construction Standards Rules. IDAPA 37.03.09.

Attachment A

Shadow Mountain Springs, Inc.
Susceptibility Analysis Worksheets

Ground Water Susceptibility Report Public Water System Name : SHADOW MOUNTAIN SPRINGS INC Well# : WELL #1

Public Water System Number 1090144 6/4/02 4:16:54 PM

1. System Construction		SCORE			
Drill Date	2/25/93				
Driller Log Available	YES				
Sanitary Survey (if yes, indicate date of last survey)	YES	1996			
Well meets IDWR construction standards	NO	1			
Wellhead and surface seal maintained	YES	0			
Casing and annular seal extend to low permeability unit	YES	0			
Highest production 100 feet below static water level	YES	0			
Well located outside the 100 year flood plain	YES	0			
Total System Construction Score		1			
2. Hydrologic Sensitivity					
Soils are poorly to moderately drained	YES	0			
Vadose zone composed of gravel, fractured rock or unknown	NO	0			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	YES	0			
Total Hydrologic Score		1			
3. Potential Contaminant / Land Use - ZONE 1A		IOC Score	VOC Score	SOC Score	Microbial Score
Land Use Zone 1A	RURAL	0	0	0	0
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		0	0	0	0
Potential Contaminant / Land Use - ZONE 1B					
Contaminant sources present (Number of Sources)	YES	2	1	2	0
(Score = # Sources X 2) 8 Points Maximum		4	2	4	0
Sources of Class II or III leacheable contaminants or	YES	2	1	2	
4 Points Maximum		2	1	2	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	25 to 50% Irrigated Agricultural Land	2	2	2	2
Total Potential Contaminant Source / Land Use Score - Zone 1B		8	5	8	2
Potential Contaminant / Land Use - ZONE II					
Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
Land Use Zone II	25 to 50% Irrigated Agricultural Land	1	1	1	
Potential Contaminant Source / Land Use Score - Zone II		1	1	1	0
Potential Contaminant / Land Use - ZONE III					
Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leacheable contaminants or	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone III		0	0	0	0
Cumulative Potential Contaminant / Land Use Score		9	6	9	2
4. Final Susceptibility Source Score		4	3	4	3
5. Final Well Ranking		Low	Low	Low	Low

Ground Water Susceptibility Report Public Water System Name : SHADOW MOUNTAIN SPRINGS INC Well# : WELL #2

Public Water System Number 1090144 6/4/02 10:41:09 AM

1. System Construction		SCORE			
Drill Date	4/23/93				
Driller Log Available	YES				
Sanitary Survey (if yes, indicate date of last survey)	YES	1996			
Well meets IDWR construction standards	NO	1			
Wellhead and surface seal maintained	YES	0			
Casing and annular seal extend to low permeability unit	YES	0			
Highest production 100 feet below static water level	YES	0			
Well located outside the 100 year flood plain	YES	0			
Total System Construction Score		1			
2. Hydrologic Sensitivity					
Soils are poorly to moderately drained	YES	0			
Vadose zone composed of gravel, fractured rock or unknown	NO	0			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	YES	0			
Total Hydrologic Score		1			
3. Potential Contaminant / Land Use - ZONE 1A		IOC Score	VOC Score	SOC Score	Microbial Score
Land Use Zone 1A	RURAL	0	0	0	0
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		0	0	0	0
Potential Contaminant / Land Use - ZONE 1B					
Contaminant sources present (Number of Sources)	YES	2	1	2	0
(Score = # Sources X 2) 8 Points Maximum		4	2	4	0
Sources of Class II or III leachable contaminants or	YES	2	1	2	
4 Points Maximum		2	1	2	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	25 to 50% Irrigated Agricultural Land	2	2	2	2
Total Potential Contaminant Source / Land Use Score - Zone 1B		8	5	8	2
Potential Contaminant / Land Use - ZONE II					
Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leachable contaminants or	NO	0	0	0	
Land Use Zone II	25 to 50% Irrigated Agricultural Land	1	1	1	
Potential Contaminant Source / Land Use Score - Zone II		1	1	1	0
Potential Contaminant / Land Use - ZONE III					
Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leachable contaminants or	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone III		0	0	0	0
Cumulative Potential Contaminant / Land Use Score		9	6	9	2
4. Final Susceptibility Source Score		4	3	4	3
5. Final Well Ranking		Low	Low	Low	Low

Ground Water Susceptibility Report Public Water System Name : SHADOW MOUNTAIN SPRINGS INC Well# : WELL #3

Public Water System Number 1090144 6/4/02 10:41:22 AM

1. System Construction		SCORE			
Drill Date	6/1/93				
Driller Log Available	YES				
Sanitary Survey (if yes, indicate date of last survey)	YES	1996			
Well meets IDWR construction standards	NO	1			
Wellhead and surface seal maintained	YES	0			
Casing and annular seal extend to low permeability unit	YES	0			
Highest production 100 feet below static water level	YES	0			
Well located outside the 100 year flood plain	YES	0			
	Total System Construction Score	1			
2. Hydrologic Sensitivity					
Soils are poorly to moderately drained	YES	0			
Vadose zone composed of gravel, fractured rock or unknown	NO	0			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	YES	0			
	Total Hydrologic Score	1			
3. Potential Contaminant / Land Use - ZONE 1A		IOC Score	VOC Score	SOC Score	Microbial Score
Land Use Zone 1A	RURAL	0	0	0	0
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		0	0	0	0
Potential Contaminant / Land Use - ZONE 1B					
Contaminant sources present (Number of Sources)	YES	2	1	2	0
(Score = # Sources X 2) 8 Points Maximum		4	2	4	0
Sources of Class II or III leachable contaminants or	YES	2	1	2	
4 Points Maximum		2	1	2	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	25 to 50% Irrigated Agricultural Land	2	2	2	2
Total Potential Contaminant Source / Land Use Score - Zone 1B		8	5	8	2
Potential Contaminant / Land Use - ZONE II					
Contaminant Sources Present	NO	0	0	0	
Sources of Class II or III leachable contaminants or	NO	0	0	0	
Land Use Zone II	25 to 50% Irrigated Agricultural Land	1	1	1	
Potential Contaminant Source / Land Use Score - Zone II		1	1	1	0
Potential Contaminant / Land Use - ZONE III					
Contaminant Source Present	NO	0	0	0	
Sources of Class II or III leachable contaminants or	NO	0	0	0	
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone III		0	0	0	0
Cumulative Potential Contaminant / Land Use Score		9	6	9	2
4. Final Susceptibility Source Score		4	3	4	3
5. Final Well Ranking		Low	Low	Low	Low

Potential Contaminant Inventory
List of Acronyms and Definitions

AST (Aboveground Storage Tanks) – Sites with aboveground storage tanks.

Business Mailing List – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

CERCLIS – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as ASuperfund≅ is designed to clean up hazardous waste sites that are on the national priority list (NPL).

Cyanide Site – DEQ permitted and known historical sites/facilities using cyanide.

Dairy – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

Deep Injection Well – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

Enhanced Inventory – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

Floodplain – This is a coverage of the 100year floodplains.

Group 1 Sites – These are sites that show elevated levels of contaminants and are not within the priority one areas.

Inorganic Priority Area – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

Landfill – Areas of open and closed municipal and non-municipal landfills.

LUST (Leaking Underground Storage Tank) – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

Mines and Quarries – Mines and quarries permitted through the Idaho Department of Lands.)

Nitrate Priority Area – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

NPDES (National Pollutant Discharge Elimination System) – Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

Organic Priority Areas – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

Recharge Point – This includes active, proposed, and possible recharge sites on the Snake River Plain.

RICRIS – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

Toxic Release Inventory (TRI) – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

UST (Underground Storage Tank) – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

Wastewater Land Applications Sites – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

Wellheads – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

NOTE: Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.